



# STIC Search Report

## EIC 2100

STIC Database Tracking Number 152276

TO: Cam-Linh T Nguyen  
Location: RND 3C21  
Art Unit : 2161  
Tuesday, May 03, 2005

Case Serial Number: 09/800607

From: Carol Wong  
Location: EIC 2100  
RND 4A30  
Phone: 272-3513

carol.wong@uspto.gov

### Search Notes

Dear Examiner Nguyen,

Attached are the search results (from commercial databases) for your case.

Please call if you have any questions or suggestions for additional terminology, or a different approach to searching the case.

Thanks,  
Carol



# STIC EIC 2100 Search Request Form

152276

Today's Date:

5/3/05

What date would you like to use to limit the search?

Priority Date: 3-9-00

Other:

Name Nguyen, Cam Linh

Format for Search Results (Circle One):

PAPER

DISK

EMAIL

Where have you searched so far?

USP DWPI EPO JPO ACM IBM TDB

IEEE INSPEC SPI Other \_\_\_\_\_

AU 2161 Examiner # 78921

Room # RND-3021 Phone 2-4024

Serial # 091801, 140

Is this a "Fast & Focused" Search Request? (Circle One) YES NO

A "Fast & Focused" Search is completed in 2-3 hours (maximum). The search must be on a very specific topic and meet certain criteria. The criteria are posted in EIC2100 and on the EIC2100 NPL Web Page at <http://ptoweb/patents/stic/stic-tc2100.htm>.

What is the topic, novelty, motivation, utility, or other specific details defining the desired focus of this search? Please include the concepts, synonyms, keywords, acronyms, definitions, strategies, and anything else that helps to describe the topic. Please attach a copy of the abstract, background, brief summary, pertinent claims and any citations of relevant art you have found.

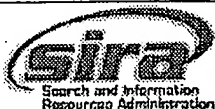
(Hierarchical DB  
or Tree or B tree DB  
- Search# near 8 (node or nodes) any, all  
- Dichotomous (yes - no)

STIC Searcher C. Wong

Phone 212-3513

Date picked up 4-3

Date Completed 4-3-05



File 348:EUROPEAN PATENTS 1978-2005/Apr W04

(c) 2005 European Patent Office

File 349:PCT FULLTEXT 1979-2005/UB=20050428,UT=20050421

(c) 2005 WIPO/Univentio

File 324:German Patents Fulltext 1967-200516

(c) 2005 Univention

Set	Items	Description
S1	105497	HIERARCH? OR TREE OR TREES OR BTREE? OR SUBTREE? OR TREEMA- P?
S2	95253	NODE OR NODES OR NODAL? ? OR SUBNODE? OR SUBNODAL? OR MULT- INODE? OR MULTINODAL?
S3	19321	(ANY OR ANYONE OR ALL OR EACH OR EVERY OR EVERYONE) (1W)S2
S4	1587581	SEARCH? OR QUERY? OR QUERIE? ? OR SUBQUER?
S5	1011305	CHOICE? ? OR OPTION? ? OR ALTERNATIVE? ? OR ALTERNATE OR A- LTERNATES
S6	43634	(BINARY OR TWO OR PAIR?? ? OR DUAL OR 2 OR DYAD? OR DUAD? - OR COUPLE OR DUplet?) (1W) (S5 OR SELECTION? ?)
S7	257	DICHOTOMOUS
S8	3349	S1(20N)S3
S9	4	S8(20N)S6:S7
S10	3974	S2(10N)S4
S11	6	S10(20N)S6:S7
S12	3	S11 NOT S9
?		

9/5,K/2 (Item 2 from file: 349)  
DIALOG(R) File 349:PCT FULLTEXT  
(c) 2005 WIPO/Univentio. All rts. reserv.

00833794 \*\*Image available\*\*

METHOD AND APPARATUS FOR PERFORMING A RESEARCH TASK BY INTERCHANGEABLY  
UTILIZING A MULTITUDE OF SEARCH METHODOLOGIES

PROCEDE ET DISPOSITIF POUR METTRE EN OEUVRE UNE TACHE DE RECHERCHE  
UTILISANT DE MANIERE INTERCHANGEABLE UNE MULTITUDE DE METHODES DE  
RECHERCHE

Patent Applicant/Assignee:

THE WEB ACCESS INC, 100 Century Court, Suite 320, San Jose, CA 95112, US,  
US (Residence), US (Nationality), (For all designated states except:  
US)

Patent Applicant/Inventor:

KEITH Robert Olan Jr, 1921 Bridgewood Way, Modesto, CA 95355, US, US  
(Residence), US (Nationality), (Designated only for: US)

Legal Representative:

HAVERSTOCK Thomas B (et al) (agent), Haverstock & Owens LLP, 260 Sheridan  
Avenue, Suite 420, Palo Alto, CA 94306, US,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200167351 A1 20010913 (WO 0167351)

Application: WO 2001US7096 20010306 (PCT/WO US0107096)

Priority Application: US 2000188328 20000309; US 2000200963 20000501

Designated States:

(Protection type is "patent" unless otherwise stated - for applications  
prior to 2004)

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE  
ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT  
LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM  
TR TT TZ UA UG US UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: G06F-017/60

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 23663

English Abstract

A method of and apparatus for accessing data over a PSTN (public switched  
telephone network) (24) where the data can be retrieved using a keyword  
(300), dichotomous (900), parametric (700) or hierarchical (500) search  
methodology.

French Abstract

L'invention concerne un procede et un dispositif servant a acceder a des  
donnees sur un RTPC (reseau telephonique public commute) (24), qui  
permettent de recuperer des donnees a l'aide d'une methodes de recherche  
a mot-cle (300), dichotomique (900), parametrique (700) ou hierarchique  
(500).

Legal Status (Type, Date, Text)

Publication 20010913 A1 With international search report.

Examination 20011213 Request for preliminary examination prior to end of  
19th month from priority date

Fulltext Availability:  
Detailed Description

Detailed Description  
... below.

As is the case with the directory tree structure as a whole, within the **dichotomous decision tree** the higher the level the more general the information. When navigating down a **dichotomous** key structure, **each** lower **node** splits the knowledge base in half. If a user does break out of the **tree** to perform a keyword search, the search is performed only on the remaining information below the node.

The **dichotomous** key structure uses a binary search and is good for use when the user is...

9/5,K/3 (Item 3 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
(c) 2005 WIPO/Univentio. All rts. reserv.

00833681 \*\*Image available\*\*  
METHOD AND APPARATUS FOR PERFORMING A RESEARCH TASK BY INTERCHANGEABLY  
UTILIZING A MULTITUDE OF SEARCH METHODOLOGIES  
PROCEDE ET DISPOSITIF SERVANT A EFFECTUER UNE TACHE DE RECHERCHE EN  
UTILISANT DE MANIERE INTERCHANGEABLE UNE MULTITUDE DE METHODOLOGIES DE  
RECHERCHE

Patent Applicant/Assignee:

THE WEB ACCESS INC, 100 Century Court, Suite 320, San Jose, CA 95112, US,  
US (Residence), US (Nationality), (For all designated states except:  
US)

Patent Applicant/Inventor:

KEITH Robert Olan Jr, 1921 Bridgewood Way, Modesto, CA 95355, US, US  
(Residence), US (Nationality), (Designated only for: US)

Legal Representative:

HAVERSTOCK Thomas B (et al) (agent), Haverstock & Owens LLP, 260 Sheridan  
Avenue, Suite 420, Palo Alto, CA 94306, US,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200167209 A2-A3 20010913 (WO 0167209)  
Application: WO 2001US7185 20010306 (PCT/WO US0107185)  
Priority Application: US 2000188328 20000309; US 2000200963 20000501

Designated States:

(Protection type is "patent" unless otherwise stated - for applications  
prior to 2004)

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE  
ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT  
LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM  
TR TT TZ UA UG US UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: G06F-017/30

International Patent Class: G06F-015/16

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 21220

#### English Abstract

A method of and apparatus for performing a research task interchangeably utilizes a multitude of search methodologies including keyword search (300), hierarchical search (500), dichotomous key search (900), and parameters search (700). A search criteria (305) is correlated to a searchable database. The process is repeated by correlating a subsequent search criteria (330) to one of the matching items for generating one or more subsequent matching item until the research task is completed. The searchable database can be formatted in a directory tree structure which includes nodes comprising a collection of related data and branches comprising links between the nodes. The collection of related data for a particular node can be displayed in an encyclopedia-like format. A specific node within the directory tree structure is accessible using a query string which defines a navigation path through the directory tree structure to access the specific node.

#### French Abstract

L'invention concerne un procede et un dispositif servant a effectuer une tache de recherche et utilisant de maniere interchangeable une multitude de methodologies de recherche incluant une recherche par mot-cle, une recherche hierarchique, une recherche par cle dichotomique et une recherche parametrique. Un critere de recherche est correle avec une base de donnees consultable afin de generer un ou plusieurs elements concordants, chaque element concordant correspondant a un segment de la base de donnees consultable. On repete le processus en correlant un autre critere de recherche avec l'un des elements concordants afin de generer un ou plusieurs autres elements concordants jusqu'a ce que la tache de recherche soit achevee. Il est possible de formater la base de donnees consultable en une arborescence de repertoires qui contient des noeuds comprenant une collection de donnees apparentees et de branches incluant des liens entre les noeuds. La collection de donnees apparentees pour un noeud particulier peut etre affichee dans un format d'encyclopedie. Un noeud specifique dans l'arborescence de repertoires est accessible par une chaine d'interrogation qui definit un chemin d'exploration a travers l'arborescence de repertoires pour acceder au noeud specifique.

#### Legal Status (Type, Date, Text)

Publication 20010913 A2 Without international search report and to be republished upon receipt of that report.  
Examination 20011220 Request for preliminary examination prior to end of 19th month from priority date  
Search Rpt 20020117 Late publication of international search report  
Republication 20020117 A3 With international search report.

#### Fulltext Availability:

Detailed Description  
Detailed Description  
... below.

As is the case with the directory tree structure as a whole, within the **dichotomous decision tree** the higher the level the more general the information. When navigating down a **dichotomous key** structure, each lower **node** splits the knowledge base in half. If a user does break out of the **tree** to perform a keyword search, the search is performed only on the remaining information below the node.

The **dichotomous key** structure uses a binary search and is good for use when the user is...

9/5,K/4 (Item 4 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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00833679 \*\*Image available\*\*

METHOD AND APPARATUS FOR ORGANIZING DATA BY OVERLAYING A SEARCHABLE  
DATABASE WITH A DIRECTORY TREE STRUCTURE

PROCEDE ET DISPOSITIF D'ORGANISATION DE DONNEES PAR LA SUPERPOSITION D'UNE  
BASE DE DONNEES CONSULTABLE COMPORTANT UNE ARBORESCENCE DE REPERTOIRES

Patent Applicant/Assignee:

THE WEB ACCESS INC, 100 Century Court, Ste. 320, San Jose, CA 95112, US,  
US (Residence), US (Nationality), (For all designated states except:  
US)

Patent Applicant/Inventor:

KEITH Robert Olan Jr, 1921 Bridgewood Way, Modesto, CA 95355, US, US  
(Residence), US (Nationality), (Designated only for: US)

Legal Representative:

HAVERSTOCK Thomas B (et al) (agent), Haverstock & Owens LLP, Suite 420,  
260 Sheridan Avenue, Palo Alto, CA 94306, US,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200167207 A2-A3 20010913 (WO.0167207)

Application: WO 2001US7112 20010306 (PCT/WO US0107112)

Priority Application: US 2000188328 20000309; US 2000200963 20000501

Designated States:

(Protection type is "patent" unless otherwise stated - for applications  
prior to 2004)

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE  
ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT  
LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM  
TR TT TZ UA UG US UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: G06F-017/60

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 19670

#### English Abstract

The method includes generating the directory tree structure that includes nodes comprising a designated category for each node and branches comprising links between the nodes, and generating one or more pointers. Each pointer corresponds to a specific node and the pointer links the specific node to an item of data within the searchable database. All pointers associated with the specific node link related items of data corresponding to the designated category. Each node within the directory tree structure can include a corresponding html address. Items of data can be web-based multimedia including audio, video, images, and appropriately formatted text, displayed in an encyclopedia-like format. Nodes, branches, and pointers within the directory tree structure can continually be added, edited, or deleted.

#### French Abstract

L'invention concerne un procede et un dispositif servant a organiser des donnees par la superposition d'une base de donnees consultable comportant une arborescence de repertoires. Le procede comporte les etapes

consistant a produire l'arborescence de repertoires qui comprend des noeuds incluant une categorie designee pour chaque noeud et des embranchements incluant des liens entre les noeuds ; et a produire un ou plusieurs pointeurs. Chaque pointeur correspond a un noeud specifique et le pointeur relie le noeud specifique a un element de donnees situe dans la base de donnees consultable. Tous les pointeurs associes aux elements de donnees relies par une liaison de noeud specifique correspondent a la categorie designee. Chaque noeud d'une arborescence de repertoires peut comprendre une adresse HTML correspondante. Les elements de donnees peuvent etre des donnees multimedia de web, par exemple des donnees audio, video, des images et du texte formate de maniere appropriee, presentes en format de type encyclopedie. Des noeuds, des embranchements et des pointeurs peuvent etre ajoutes, edites ou supprimees en continu dans l'arborescence de repertoires.

Legal Status (Type, Date, Text)

Publication 20010913 A2 Without international search report and to be republished upon receipt of that report.

Search Rpt 20020321 Late publication of international search report

Republication 20020321 A3 With international search report.

Republication 20020321 A3 Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

Examination 20020523 Request for preliminary examination prior to end of 19th month from priority date

Fulltext Availability:

Detailed Description

Detailed Description

... below.

As is the case with the directory tree structure as a whole, within the **dichotomous** decision **tree** the higher the level the more general the information. When navigating down a **dichotomous** key structure, **each** lower **node** splits the knowledge base in half. If a user does break out of the **tree** to perform a keyword search, the search is performed only on the remaining information below the node.

- 24 The **dichotomous** key structure uses a binary search and is good for use when the user is...



File 347:JAPIO Nov 1976-2004/Dec(Updated 050405)  
(c) 2005 JPO & JAPIO

File 350:Derwent WPIX 1963-2005/UD,UM &UP=200527  
(c) 2005 Thomson Derwent

File 344:Chinese Patents Abs Aug 1985-2004/May  
(c) 2004 European Patent Office

File 371:French Patents 1961-2002/BOPI 200209  
(c) 2002 INPI. All rts. reserv.

Set	Items	Description
S1	71548	HIERARCH? OR TREE OR TREES OR BTREE? OR SUBTREE? OR TREEMA- P?
S2	92263	NODE OR NODES OR NODAL? ? OR SUBNODE? OR SUBNODAL? OR MULT- INODE? OR MULTINODAL?
S3	10089	(ANY OR ANYONE OR ALL OR EACH OR EVERY OR EVERYONE) (1W) S2
S4	671769	SEARCH? OR QUERY? OR QUERIE? ? OR SUBQUER?
S5	225739	CHOICE? ? OR OPTION? ? OR ALTERNATIVE? ? OR ALTERNATE OR A- LTERNATES
S6	4510	(BINARY OR TWO OR PAIR?? ? OR DUAL OR 2 OR DYAD? OR DUAD? - OR COUPLE OR DUplet?) (1W) (S5 OR SELECTION? ?)
S7	39	DICHOTOMOUS
S8	1147	S1 AND S3
S9	2	S8 AND S6:S7
S10	1544	S2(10N)S4
S11	4	S10 AND S6:S7
S12	5	S9 OR S11

12/9/2 (Item 1 from file: 350)

DIALOG(R)File 350:Derwent WPIX  
(c) 2005 Thomson Derwent. All rts. reserv.

014726443 \*\*Image available\*\*

WPI Acc No: 2002-547147/200258

Related WPI Acc No: 2001-582337; 2001-624977; 2002-061747; 2002-061748;  
2002-205282; 2002-279998; 2002-291308; 2002-338066; 2002-403533;  
2002-642433

XRFX Acc No: N02-433180

Information accessing method in electronic system, involves formatting  
searchable database into directory tree structure and accessing specific  
node using query string which defines navigation path through tree  
structure

Patent Assignee: WEB ACCESS INC (WEB-A-N)

Inventor: KEITH R O

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20020065812	A1	20020530	US 2000188328	A	20000309	200258 B
			US 2000200963	A	20000501	
			US 2001801140	A	20010306	

Priority Applications (No Type Date): US 2001801140 A 20010306; US  
2000188328 P 20000309; US 2000200963 P 20000501

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20020065812	A1		28	G06F-017/30	Provisional application US 2000188328

Provisional application US 2000200963

Abstract (Basic): US 20020065812 A1

NOVELTY - A searchable database in an electronic system is

formatted into directory tree structure having nodes comprising related data. Each item of the related data is categorized by a navigation path through the directory tree structure by several previously setup parameters. A **node** within the tree structure is accessed using a **query** string which defines the navigation path.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

(1) Research system for accessing information within electronic system; and

(2) Network of devices for accessing information within the electronic system.

USE - For accessing information within directory tree structure in electronic system such as computer system connected to network by use of search method such as keyword search, hierarchical search, **dichotomous** key search and parametric search.

ADVANTAGE - Avoids the need of manually traversing the navigation path since **query** string is used to access the **node**. Improves research accuracy and provides data management methodology that reduces costs and the time users spend finding the desired objective. Enables the user to quickly and easily jump from one technology to another to maximize the benefits of using multiple approach techniques.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of database management and research system.

pp; 28 DwgNo 1/10

Title Terms: INFORMATION; ACCESS; METHOD; ELECTRONIC; SYSTEM; FORMAT; SEARCH; DATABASE; DIRECTORY; TREE; STRUCTURE; ACCESS; SPECIFIC; NODE; QUERY; STRING; DEFINE; NAVIGATION; PATH; THROUGH; TREE; STRUCTURE

Derwent Class: T01; W01

International Patent Class (Main): G06F-017/30

File Segment: EPI

Manual Codes (EPI/S-X): T01-J05B2B; T01-J05B4M; T01-N03A2; W01-A

12/9/3 (Item 2 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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014241048 \*\*Image available\*\*

WPI Acc No: 2002-061748/200208

Related WPI Acc No: 2001-582337; 2001-624977; 2002-061747; 2002-205282; 2002-279998; 2002-291308; 2002-338066; 2002-403533; 2002-547147; 2002-642433

XRPX Acc No: N02-045855

Research method for Internet involves using several search methods e.g. **keyword**, hierarchical, **dichotomous key**, or parametric.

Patent Assignee: WEB ACCESS INC (WEBA-N)

Inventor: KEITH R O

Number of Countries: 094 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200167209	A2	20010913	WO 2001US7185	A	20010306	200208 B
AU 200143459	A	20010917	AU 200143459	A	20010306	200208

Priority Applications (No Type Date): US 2000200963 P 20000501; US 2000188328 P 20000309

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200167209 A2 E 69 G06F-000/00

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT

RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW  
Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR  
IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW  
AU 200143459 A G06F-000/00 Based on patent WO 200167209

Abstract (Basic): WO 200167209 A2

NOVELTY - Search method selected by research module (100) e.g. keyword (300), **hierarchical** (500), **dichotomous** key (900), or parametric (700), and used with search criteria to find matching items which are then used to find other related items.

DETAILED DESCRIPTION - Directory **tree** structure created in server (12). Each **node** has a category e.g. botany. Pointers from specific node lead to items of that category. Pointer is defined by navigation path and set of parameters. Nodes, data links and pointers can be added, edited or deleted. Data is multimedia and displayed in an encyclopedia page. Each **node** can contain a corresponding hypertext markup language address.

INDEPENDENT CLAIMS are included for

1. A research system using the described method.
2. A server implementing the described method.

USE - As a means of organizing research on the Internet e.g. Internet encyclopedia.

ADVANTAGE - Combines best search methodologies.

DESCRIPTION OF DRAWING(S) - Drawing is a block diagram of the described system.

Server (12)

Research module (100)

Keyword search module (300)

**Hierarchical** search module (500).

Parametric search module (700)

**Dichotomous** key module (900)

pp; 69 DwgNo 1/10

Title Terms: RESEARCH; METHOD; SEARCH; METHOD; KEYWORD; **HIERARCHY** ; KEY; PARAMETER

Derwent Class: T01

International Patent Class (Main): G06F-000/00

File Segment: EPI

Manual Codes (EPI/S-X): T01-H07C3D; T01-H07C5E; T01-H07C5S; T01-J05B2B; T01-J05B3; T01-J05B4A; T01-J05B4M; T01-J11C1

12/9/4 (Item 3 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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014241047 \*\*Image available\*\*

WPI Acc No: 2002-061747/200208

Related WPI Acc No: 2001-582337; 2001-624977; 2002-061748; 2002-205282;

2002-279998; 2002-291308; 2002-338066; 2002-403533; 2002-547147;

2002-642433

XRPX Acc No: N02-045854

Data organization method for the Internet involves creating a directory tree structure with various node categories and generating pointers linking specific nodes to items of data

Patent Assignee: WEB ACCESS INC (WEB-A-N)

Inventor: KEITH R O

Number of Countries: 094 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200167207	A2	20010913	WO 2001US7112	A	20010306	200208 B

AU 200140061 A 20010917 AU 200140061 A 20010306 200208

Priority Applications (No Type Date): US 2000200963 P 20000501; US  
2000188328 P 20000309

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200167207 A2 E 66 G06F-000/00

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA  
CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP  
KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT  
RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR  
IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

AU 200140061 A G06F-000/00 Based on patent WO 200167207

Abstract (Basic): WO 200167207 A2

NOVELTY - Directory **tree** structure created in server (12). Each **node** has a category e.g. botany. Pointers from specific node lead to items of that category. Pointer is defined by navigation path and set of parameters. **Nodes**, data links and pointers can be added, edited or deleted. Search may be keyword (300), **hierarchical** (500), **dichotomous** key (900), or parametric (700).

DETAILED DESCRIPTION - Data is multimedia and displayed in an encyclopedia page. Each **node** can contain a corresponding hypertext markup language address.

INDEPENDENT CLAIMS are included for

1. A system using the described method.
2. A server implementing the described method.

USE - As a means of organizing research on the Internet e.g. Internet encyclopedia.

ADVANTAGE - Combines best search methodologies.

DESCRIPTION OF DRAWING(S) - Drawing is a block diagram of the described system.

Server (12)

Research module (100)

Keyword search module (300)

**Hierarchical** search module (500)

Parametric search module (700)

**Dichotomous** key module (900)

pp; 66 DwgNo 1/9

Title Terms: DATA; ORGANISE; METHOD; DIRECTORY; **TREE**; STRUCTURE; VARIOUS;  
NODE; CATEGORY; GENERATE; POINT; LINK; SPECIFIC; NODE; ITEM; DATA

Derwent Class: T01

International Patent Class (Main): G06F-000/00

File Segment: EPI

Manual Codes (EPI/S-X): T01-H07C3D; T01-H07C5E; T01-H07C5S; T01-J05B3;  
T01-J05B4A; T01-J05B4M

12/9/5 (Item 4 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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014098123 \*\*Image available\*\*

WPI Acc No: 2001-582337/200165

Related WPI Acc No: 2001-624977; 2002-061747; 2002-061748; 2002-205282;  
2002-279998; 2002-291308; 2002-338066; 2002-403533; 2002-547147;  
2002-642433

XRPX Acc No: N01-433836

Database searching method for executing research over public switched

telephone networks, uses combinations of keyword, dichotomous ,  
parametric or hierarchical search methodologies

Patent Assignee: WEB ACCESS INC (WEBA-N)

Inventor: KEITH R O

Number of Countries: 094 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200167351	A1	20010913	WO 2001US7096	A	20010306	200165 B
AU 200143443	A	20010917	AU 200143443	A	20010306	200204

Priority Applications (No Type Date): US 2000200963 P 20000501; US  
2000188328 P 20000309

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200167351 A1 E 69 G06F-017/60

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA  
CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP  
KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT  
RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR  
IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

AU 200143443 A G06F-017/60 Based on patent WO 200167351

Abstract (Basic): WO 200167351 A1

NOVELTY - Research is executed on networked (24) databases using  
user defined parameters (700) or keywords (300). A hierarchical search  
(500) using a tree directory or a dichotomous binary search (900) can  
also be executed. The directory tree is divided into nodes of related  
data. Branches link between the nodes. Results are displayed in an  
encyclopedia-like format of text, graphics and links to related topics.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the  
following:

(1) A research system for performing a research task within a  
searchable database using combinations of keyword, hierarchical,  
parametric and dichotomous searches and using a research server.

(2) Methods of performing searches on databases using combinations  
of keyword, hierarchical, parametric and dichotomous searches.

USE - For researching of databases over a public switched telephone  
network (PSTN) such as the Internet.

ADVANTAGE - The research method provides a real time interactive  
process to manage, redefine, reorganize, access, store and retrieve  
information without the need to perform data conversion. The database  
management and research system provides a customizable directory tree  
structure that functions with existing networks, security and  
infrastructure. The system overlays and points to existing data thereby  
providing the necessary management and access processes relative to the  
existing data. The directory tree structure includes nodes which  
represent Hypertext Markup Language (HTML) addresses and branches which  
represent links between HTML addresses in other nodes . It enables  
discrete searches to be executed on linked data by using a  
combination of search methodologies.

DESCRIPTION OF DRAWING(S) - The block diagram represents a database  
management and researching system.

Public switched telephone network (24)

Keyword search module (300)

Hierarchical search module (500)

Parametric search module (700)

Dichotomous search module (900)

pp; 69 DwgNo 1/10

Title Terms: DATABASE; SEARCH; METHOD; EXECUTE; RESEARCH; PUBLIC; SWITCH;  
TELEPHONE; NETWORK; COMBINATION; KEYWORD; PARAMETER; HIERARCHY; SEARCH

Derwent Class: T01; W01

International Patent Class (Main): G06F-017/60

File Segment: EPI

Manual Codes (EPI/S-X): T01-H07C5E; T01-H07C5S; T01-J05B2B; T01-J05B3;  
T01-J05B4P; T01-J11C1; W01-C02D

?

File 6:NTIS 1964-2005/Apr W3  
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File 2:INSPEC 1969-2005/Apr W4  
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File 8:Ei Compendex(R) 1970-2005/Apr W4  
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File 34:SciSearch(R) Cited Ref Sci 1990-2005/Apr W4  
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File 35:Dissertation Abs Online 1861-2005/Mar  
(c) 2005 ProQuest Info&Learning

File 65:Inside Conferences 1993-2005/May W1  
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File 94:JICST-EPlus 1985-2005/Mar W3  
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File 111:TGG Natl.Newspaper Index(SM) 1979-2005/May 02  
(c) 2005 The Gale Group

File 144:Pascal 1973-2005/Apr W4  
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File 256:TecInfoSource 82-2005/Mar  
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File 266:FEDRIP 2005/Jan  
Comp & dist by NTIS, Intl Copyright All Rights Res

File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec  
(c) 1998 Inst for Sci Info

File 438:Library Lit. & Info. Science 1984-2005/Mar  
(c) 2005 The HW Wilson Co

File 483:Newspaper Abs Daily 1986-2005/Apr 30  
(c) 2005 ProQuest Info&Learning

File 583:Gale Group Globalbase(TM) 1986-2002/Dec 13  
(c) 2002 The Gale Group

File 603:Newspaper Abstracts 1984-1988  
(c)2001 ProQuest Info&Learning

Set	Items	Description
S1	813282	HIERARCH? OR TREE OR TREES OR BTREE? OR SUBTREE? OR TREEMA-P?
S2	410335	NODE OR NODES OR NODAL? ? OR SUBNODE? OR SUBNODAL? OR MULT-INODE? OR MULTINODAL?
S3	29640	(ANY OR ANYONE OR ALL OR EACH OR EVERY OR EVERYONE) (1W)S2
S4	852576	SEARCH? OR QUERY? OR QUERIE? ? OR SUBQUER?
S5	1871237	CHOICE? ? OR OPTION? ? OR ALTERNATIVE? ? OR ALTERNATE OR A-LTERNATES
S6	41449	(BINARY OR TWO OR PAIR?? ? OR DUAL OR 2 OR DYAD? OR DUAD? - OR COUPLE OR DUPLT?) (1W) (S5 OR SELECTION? ?)
S7	8146	DICHOTOMOUS
S8	6017	S1 AND S3
S9	14	S8 AND S6:S7
S10	4952	S2(10N)S4
S11	18	S10 AND S6:S7
S12	31	S9 OR S11
S13	11	S12/2001:2005
S14	20	S12 NOT S13
S15	13	RD (unique items)

15/7/1 (Item 1 from file: 2)  
DIALOG(R)File 2:INSPEC  
(c) 2005 Institution of Electrical Engineers. All rts. reserv.

6691666 INSPEC Abstract Number: C2000-10-6160Z-005

Title: **TSA- tree : a wavelet-based approach to improve the efficiency of multi-level surprise and trend queries on time-series data**

Author(s): Shahabi, C.; Tian, X.; Zhao, W.

Author Affiliation: Dept. of Comput. Sci., Univ. of Southern California, Los Angeles, CA, USA

Conference Title: Proceedings. 12th International Conference on Scientific and Statistical Database Management p.55-68

Editor(s): Gunther, O.; Lenz, H.-J.

Publisher: IEEE Comput. Soc, Los Alamitos, CA, USA

Publication Date: 2000 Country of Publication: USA x+261 pp.

ISBN: 0 7695 0686 0 Material Identity Number: XX-2000-01866

U.S. Copyright Clearance Center Code: 0 7695 0686 0/2000/\$20.00

Conference Title: Proceedings. 12th International Conference on Scientific and Statistical Database Management

Conference Sponsor: Deutsche Forschungsgemeinschaft; Freie Univ. Berlin; Humbolt-Univ. zu Berlin; MicroStrategy Deutschland; SAS Inst. Deutschland; Scopeland; Statistisches Landesamt Berlin

Conference Date: 26-28 July 2000 Conference Location: Berlin, Germany

Language: English Document Type: Conference Paper (PA)

Treatment: Practical (P)

Abstract: We introduce a novel wavelet based **tree** structure, termed **TSA- tree**, which improves the efficiency of multi-level trend and surprise queries on time sequence data. With the explosion of scientific observation data conceptualized as time sequences, we are facing the challenge of efficiently storing, retrieving and analyzing this data. Frequent queries on this data set are to find trends (e.g., global warming) or surprises (e.g., undersea volcano eruption) within the original time series. The challenge, however is that these trend and surprise queries are needed at different levels of abstractions. To support these multi-level trend and surprise queries, sometimes a huge subset of raw data needs to be retrieved and processed. To expedite this process, we utilize our **TSA- tree**.

Each **node** of the **TSA- tree** contains pre-computed trends and surprises at different levels. A wavelet transform is used recursively to construct **TSA nodes**. As a result, each **node** of **TSA tree** is readily available for visualization of trends and surprises. In addition, the size of each **node** is significantly smaller than that of the original time series, resulting in faster I/O operations. However a limitation of **TSA- tree** is that its size is larger than the original time series. To address this shortcoming, first we prove that the storage space required to store the optimal **subtree** of **TSA- tree** (**OTSA- tree**) is no more than that required to store the original time series without losing any information. Next, we propose two **alternative** techniques to reduce the size of the **OTSA- tree** even further while maintaining an acceptable query precision as compared to querying the original time sequences. Utilizing real and synthetic time sequence databases, we compare our techniques with some well known algorithms. (30 Refs)

Subfile: C

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15/7/2 (Item 2 from file: 2)

DIALOG(R)File 2:INSPEC

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5649658 INSPEC Abstract Number: B9709-6140-102, C9709-5260-026

Title: **Orthonormal shift-invariant wavelet packet decomposition and representation**

Author(s): Cohen, I.; Raz, S.; Malah, D.



Author Affiliation: Dept. of Electr. Eng., Israel Inst. of Technol., Haifa, Israel

Journal: Signal Processing vol.57, no.3 p.251-70

Publisher: Elsevier for EURASIP,

Publication Date: March 1997 Country of Publication: Netherlands

CODEN: SPRODR ISSN: 0165-1684

SICI: 0165-1684(199703)57:3L:251:OSIW;1-6

Material Identity Number: S244-97009

U.S. Copyright Clearance Center Code: 0165-1684/97/\$17.00

Document Number: S0165-1684(97)00007-8

Language: English Document Type: Journal Paper (JP)

Treatment: Bibliography (B); Theoretical (T)

**Abstract:** In this work, a shifted wavelet packet (SWP) library, containing all the time shifted wavelet packet bases, is defined. A corresponding shift-invariant wavelet packet decomposition (SIWPD) search algorithm for a 'best basis' is introduced. The search algorithm is representable by a binary tree, in which a node symbolizes an appropriate subspace of the original signal. We prove that the resultant 'best basis' is orthonormal and the associated expansion, characterized by the lowest information cost, is shift-invariant. The shift invariance stems from an additional degree of freedom, generated at the decomposition stage and incorporated into the search algorithm. The added dimension is a relative shift between a given parent node and its respective children nodes. We prove that for any subspace it suffices to consider one of two alternative decompositions, made feasible by the SWP library. These decompositions correspond to a zero shift and a  $2^{-l}$  relative shift where  $l$  denotes the resolution level. The optimal relative shifts, which minimize the information cost, are estimated using finite depth subtrees. By adjusting their depth, the quadratic computational complexity associated with SIWPD may be controlled at the expense of the attained information cost down to  $O(N \log \sub 2 N)$ . (49 Refs)

Subfile: B C

Copyright 1997, IEE

15/7/3 (Item 3 from file: 2)

DIALOG(R)File 2:INSPEC

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5124847 INSPEC Abstract Number: B9601-6140-107, C9601-1260-086

**Title: Shift invariant wavelet packet bases**

Author(s): Cohen, I.; Raz, S.; Malah, D.

Author Affiliation: Dept. of Electr. Eng., Technion-Israel Inst. of Technol., Haifa, Israel

Conference Title: 1995 International Conference on Acoustics, Speech, and Signal Processing. Conference Proceedings (Cat. No.95CH35732) Part vol.2 p.1081-4 vol.2

Publisher: IEEE, New York, NY, USA

Publication Date: 1995 Country of Publication: USA 5 vol. 3662 pp.

ISBN: 0 7803 2431 5

U.S. Copyright Clearance Center Code: 0 7803 2431 5/94/\$4.00

Conference Title: 1995 International Conference on Acoustics, Speech, and Signal Processing

Conference Sponsor: Signal Process. Soc. IEEE

Conference Date: 9-12 May 1995 Conference Location: Detroit, MI, USA

Language: English Document Type: Conference Paper (PA)

Treatment: Theoretical (T)

**Abstract:** A shifted wavelet packet (SWP) library, containing all the time shifted wavelet packet bases, is defined. A corresponding shift-invariant wavelet packet decomposition (SIWPD) search algorithm for a "best basis" is introduced. The search algorithm is representable by a binary tree, in

which a node symbolizes an appropriate subspace of the original signal. We prove that the resultant "best basis" is orthonormal and the associated expansion, characterized by the lowest "information cost", is shift-invariant. The shift-invariance stems from an additional degree of freedom, generated at the decomposition stage, and incorporated into the search algorithm. We prove that for any subspace it suffices to consider one of two alternative decompositions, made feasible by the SWP library. The computational complexity of SIWPD may be controlled at the expense of the attained information cost, to an extent of  $O(2N \log / \text{sub } 2/N)$ . (11 Refs)

Subfile: B C

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15/7/4 (Item 4 from file: 2)

DIALOG(R) File 2:INSPEC

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5070231 INSPEC Abstract Number: C9511-7445-017

Title: Design of an artificial simulator for analyzing route choice behavior in the presence of information system

Author(s): Reddy, P.D.V.G.; Yang, H.; Vaughn, K.M.; Abdel-Aty, M.A.; Kitamura, R.; Jovanis, P.P.

Author Affiliation: Inst. of Transport. Studies, California Univ., Davis, CA, USA

Journal: Mathematical and Computer Modelling vol.22, no.4-7 p. 119-47

Publication Date: Aug.-Oct. 1995 Country of Publication: UK

CODEN: MCMOEG ISSN: 0895-7177

U.S. Copyright Clearance Center Code: 0895-7177/95/\$9.50+0.00

Language: English Document Type: Journal Paper (JP)

Treatment: Practical (P)

Abstract: Computer simulation is often-used methodology to study travel behavior as a cost effective alternative to field studies. In this study, the authors utilize PC-based computer simulation to study the effects of information on route choice and learning. Building on the efforts of a prior stage of simulation, further experiments that utilize an expanded traffic network and provide various levels of information to subjects, have been designed. This framework allows the authors to investigate both pretrip and en route route-choice behavior, and capture the effect of different levels of information of drivers' learning and adaptive processes that are being undertaken in these experiments. The experiments were designed in two stages. In the first stage, a simple, two route-alternative traffic network was developed. Experiments conducted with this network provided extensive comments from participants, which were modeled using object-oriented programming techniques to produce a better subsequent design. The data from the first stage was analyzed using neural network techniques and the network was trained using back-propagation. The second stage of experiments utilized a multiple-route, expanded network with pretrip and/or en route information, and varying levels of information. The data obtained in this stage is being analyzed using recurrent neural networks. This paper describes the design and analysis of the first stage of experiments, and the redesign of the network simulation using experience gained in the first stage. The design of the network simulation involved the following steps: requirements analysis, database design, specifications of user-computer interface, design of shortest path module, software development, and prototype testing and refinement. The simulator was developed using an object-oriented programming language, C++. The object-oriented features included inheritance, class hierarchy, message passing and concurrence. A recurrent neural network has been built for future modeling of the data obtained in the second stage of

experiments. This neural network will be used to predict subjects' choices of whether or not to follow the system-provided advice, depending on past experience. An important feature of the neural network is that the decisions at previous nodes, will be used as an input at subsequent nodes. This allows modelling of participants' route choice behavior at every node, that is at every decision point. (10 Refs)

Subfile: C

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15/7/6 (Item 6 from file: 2)

DIALOG(R)File 2:INSPEC

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04298680 INSPEC Abstract Number: C9301-7810C-039

Title: Graphics bases instructional software for decision tree analysis using Bayesian methodology

Author(s): Ramani, K.V.

Author Affiliation: Dept. of Decision Sci., Nat. Univ. of Singapore, Singapore

Journal: Computers & Education vol.19, no.3 p.267-73

Publication Date: Oct. 1992 Country of Publication: UK

CODEN: COMEDR ISSN: 0360-1315

U.S. Copyright Clearance Center Code: 0360-1315/92/\$5.00+0.00

Language: English Document Type: Journal Paper (JP)

Treatment: Practical (P)

Abstract: A graphics based software package 'BAYES' to demonstrate the Bayesian methodology (before and after sampling) for solving decision problems under uncertainty involving two decision alternatives. The user is guided through a step by step procedure in developing the decision tree and evaluating the consequences at each node of the tree. Consequences are evaluated by computing the expected 'pay offs' and the 'opportunity losses'. Choosing the best decision after sampling involves computing various statistics such as EVSI (expected value of sample information), AMEOL (average minimum expected opportunity loss), and ENGS (expected net gain from sampling). Detailed computations of these statistics are displayed only upon request. The users can thus focus more on the methodology and less on the computational aspects. This package has made a tremendous impact on classroom teaching for MBA and executive field development program participants in India and Singapore. (0 Refs)

Subfile: C

15/7/7 (Item 7 from file: 2)

DIALOG(R)File 2:INSPEC

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02235936 INSPEC Abstract Number: C84020014

Title: How much is control knowledge worth? A primitive example

Author(s): Barnett, J.A.

Author Affiliation: USC Information Sci. Inst., Marina de Rey, CA, USA

Journal: Artificial Intelligence vol.22, no.1 p.77-89

Publication Date: Jan. 1984 Country of Publication: Netherlands

CODEN: AINTBB ISSN: 0004-3702

U.S. Copyright Clearance Center Code: 0004-3702/84/\$3.00

Language: English Document Type: Journal Paper (JP)

Treatment: Theoretical (T)

Abstract: The most basic activity performed by an intelligent agent is deciding what to do next. Usually, the decision takes the form of selecting, from among many applicable methods, one method to try first, or

opting to expand a particular node in a simple search. The most primitive case in selecting between two independent alternatives. This case is examined and the value of the control knowledge that makes the decision is determined. Another result derived is the sensitivity of the expected value of control knowledge as a function of the accuracy of the parameters used to make these control decisions. (1 Refs)

Subfile: C  
? t15/7/11

15/7/11 (Item 3 from file: 35)  
DIALOG(R)File 35:Dissertation Abs Online  
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01367079 ORDER NO: AAD94-21816  
BIVARIATE SPLITS AND CONSISTENT SPLIT CRITERIA IN DICHOTOMOUS  
CLASSIFICATION TREES

Author: LUBINSKY, DAVID JULIAN  
Degree: PH.D.  
Year: 1994  
Corporate Source/Institution: RUTGERS UNIVERSITY THE STATE U. OF NEW  
JERSEY (NEW BRUNSWICK) (0190)  
Directors: HAYM HIRSH; SHOLOM WEISS  
Source: VOLUME 55/03-B OF DISSERTATION ABSTRACTS INTERNATIONAL.  
PAGE 1004. 133 PAGES

We extend the recursive partitioning approach to classifier learning to use more complex splits at each decision node. To do this a new split criterion is derived. Efficient algorithms for finding optimal splits under the new criterion for optimal linear, rectangular, and corner splits are presented. These allow decision trees to model non-orthogonal structure and result in decision trees that often perform better in terms of reclassification accuracy than traditional methods, as well as being significantly smaller. Second, we discuss the lack of consistency of traditional split criteria such as entropy and Gini. These criteria do not optimize accuracy, whereas predictive accuracy is the most important metric by which trees are measured and is the only criterion which leads to consistent estimates of thresholds. A modification to the standard tree growing algorithm that ensures consistent trees is proposed and is shown to give smaller trees with better performance on a number of datasets. We show that traditional split criteria might miss the optimal consistent split by large amounts and under certain conditions can generate trees of unbounded size.

? t15/7/13

15/7/13 (Item 1 from file: 144)  
DIALOG(R)File 144:Pascal  
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13553037 PASCAL No.: 98-0254533  
Progressive two-class decision classifier for optimization of class  
discriminations

XIUPING JIA; RICHARDS J A  
School of Electrical Engineering, University College, The University of New  
South Wales, Australian Defence Force Academy, Canberra, Australian Capital  
Territory, Australia

Journal: Remote sensing of environment, 1998, 63 (3) 289-297  
ISSN: 0034-4257 CODEN: RSEEA7 Availability: INIST-14287;  
354000078351770090

No. of Refs.: 18 ref.  
Document Type: P (Serial) ; A (Analytic)

Country of Publication: United States

Language: English

A progressive two-class decision classifier (pTDCD) is presented in this article. The multilayer procedure converts a multiclass classification problem into a several independent two-class separations. It not only provides the general advantages of **hierarchical** classification schemes over single-stage classification but it is also free of the need for **hierarchical** structure design and offers an optimal class pair discrimination environment. At **each** decision **node**, only one class pair is considered. Data processing aimed at maximizing individual class **pair** algorithm **selection** and data source selection or data transformation, becomes more reliable and efficient. Experiments carried out using an AVIRIS data set are presented and the results demonstrate that fewer features are needed and classification accuracy is improved with the new procedure compared with single-stage classification.

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FILE 'COMPUAB, COMPUSCIENCE, CONFSCI, CONF, ELCOM, INFODATA, RDISCLOSURE, ANTE, LISA' ENTERED AT 12:16:51 ON 03 MAY 2005

L1 57605 SEA HIERARCH? OR TREE OR TREES OR BTREE? OR SUBTREE? OR TREEMAP?  
 L2 24927 SEA NODE OR NODES OR NODAL# OR SUBNODE? OR SUBNODAL? OR MULTINODE? OR MULTINODAL?  
 L3 3672 SEA (ANY OR ANYONE OR ALL OR EACH OR EVERY OR EVERYONE) (1W) L2  
 L4 109614 SEA SEARCH? OR QUERY? OR QUERIE# OR SUBQUER?  
 L5 81434 SEA CHOICE? OR OPTION# OR ALTERNATIVE# OR ALTERNATE OR ALTERNATES  
 L6 1658 SEA (BINARY OR TWO OR PAIR? OR DUAL OR 2 OR DYAD? OR DUAD? OR COUPLE OR DUPLT?) (1W) (L5 OR SELECTION#)  
 L7 176 SEA DICHOTOMOUS  
 L8 954 SEA L1 AND L3  
 L9 1 SEA L8 AND (L6 OR L7)  
 L10 979 SEA L2(20N) L4  
 L11 5 SEA L10 AND (L6 OR L7)  
 L12 6 SEA L9 OR L11  
 L13 224587 SEA 2001-2005/PY  
 L14 5 SEA L12 NOT L13

=> d bib abs 1-5

L14 ANSWER 1 OF 5 COMPUAB COPYRIGHT 2005 Cambridge Scientific Abstracts on STN  
 AN 1995:1823 COMPUAB  
 DN 0178192 (CI)  
 TI Shift invariant wavelet packet bases  
 AU Cohen I; Raz S; Malah D  
 CS Technion, Haifa, Isr.  
 SO PROC ICASSP IEEE INT CONF ACOUST SPEECH SIGNAL PROCESS, Vol. 2, pp. 1081-1084, 19950000.  
 Publisher: IEEE, PISCATAWAY, NJ, (USA).  
 Meeting info: The 1995 20th International Conference on Acoustics, Speech, and Signal Processing. Part 2 (of 5); Detroit, MI; USA; 09-12 May 1995.  
 ISSN: 0736-7791.  
 DT Conference; (Conference Paper); Journal  
 FS Computer & Information Systems  
 LA English  
 ED Entered STN: 20041219  
 Last Updated on STN: 20041219  
 AB In this work, a shifted wavelet packet (SWP) library, containing all the time shifted wavelet packet bases, is defined. A corresponding shift-invariant wavelet packet decomposition (SIWPD) search algorithm for a 'best basis' is introduced. The search algorithm is representable by a binary tree, in which a **node** symbolizes an appropriate subspace of the original signal. We prove that the resultant 'best basis' is orthonormal and the associated expansion, characterized by the lowest 'information cost', is shift-invariant. The shift-invariance stems from an additional degree of freedom, generated at the decomposition stage, and incorporated into the search algorithm. We prove that for any subspace it suffices to consider one of **two alternative** decompositions, made feasible by the SWP library. The computational complexity of SIWPD may be controlled at the expense of the attained information cost, to an extent of  $O(2N \log \text{sub}(2)N)$ .

L14 ANSWER 2 OF 5 COMPUAB COPYRIGHT 2005 Cambridge Scientific Abstracts on STN  
 AN 1984:1797 COMPUAB  
 DN 0708394 (CI)

TI How much is control knowledge worth? A primitive example.  
 AU Barnett J A  
 CS USC Inf. Sci. Inst., Marina del Rey, CA 90291, USA.  
 SO ARTIFICIAL INTELLIG., Vol. 22, No. 1, pp. 77-89, 19840000.  
 DT Journal  
 FS Computer & Information Systems  
 LA English  
 ED Entered STN: 20041219  
 Last Updated on STN: 20041219  
 AB The most basic activity performed by an intelligent agent is deciding what to do next. Usually, the decision takes the form of selecting, from among many applicable methods, one method to try first, or opting to expand a particular node in a simple search. The most primitive case is selecting between two independent alternatives. This case is examined and the value of the control knowledge that makes the decision is determined. Another result derived is the sensitivity of the expected value of control knowledge as a function of the accuracy of the parameters used to make these control decisions.

L14 ANSWER 3 OF 5 COMPUSCIENCE COPYRIGHT 2005 FIZ KARLSRUHE on STN  
 AN 1996(6):MA36174 COMPUSCIENCE  
 TI Design of an artificial simulator for analyzing route choice behavior in the presence of information system.  
 AU Reddy, P. D. V. G.; Yang, H.; Vaughn, K. M.; Abdel-Aty, M. A.; Kitamura, R.; Jovanis, P. P.  
 SO Math. Comput. Modelling. (1995) v. 22(4-7) p. 119-147.  
 1995.  
 DT Journal  
 TC Theoretical  
 CY Germany, Federal Republic of  
 LA English  
 IP FIZKA  
 DN 838.90040  
 AB Computer simulation is often-used methodology to study behavior as a cost effective alternative to field studies. In this study, we utilize PC-based computer simulation to study the effects of information on route choice and learning. Building on the efforts of a prior stage of simulation, further experiments that utilize a expanded traffic network and provide various levels of information to subjects, have been designed. This framework allows us to investigate both pretrip and en route route-choice behavior, and capture the effect of different levels of information of drivers' learning and adaptive processes that are being undertaken in these experiments.\par The experiments were designed in two stages. In the first stage, a simple, two route-alternative traffic network was developed. Experiments conducted with this network provided extensive comments from participants, which were modeled using object-oriented programming techniques to produce a better subsequent design. The data from the first stage was analyzed using neural network techniques and the network was trained using back-propagation. The second stage of experiments utilized a multiple-route, expanded network with pretrip and/or en route information, and varying levels of information. The data obtained in this stage is being analyzed using recurrent neural networks. This paper describes the design and analysis of the first stage of experiments, and the redesign of the network simulation using experience gained in the first stage.\par The design of the network simulation involved the following steps: requirements analysis, database design, specifications of user-computer interface, design of shortest path module, software development, and prototype testing and refinement. The simulator was developed using an object-oriented programming language, C++. The object-oriented features included inheritance, class hierarchy, message passing and concurrence. A recurrent neural network has been built for future modeling of the data obtained in the second

stage of experiments. This neural network will be used to predict subjects' choices of whether or not to follow the system-provided advice, depending on past experience. An important feature of the neural network is that the decisions at previous nodes, will be used as an input at subsequent nodes. This allows us to model participants route choice behavior at every node, that is at every decision point. (Summary)

L14 ANSWER 4 OF 5 COMPUSCIENCE COPYRIGHT 2005 FIZ KARLSRUHE on STN  
AN 1986(9):AC842 COMPUSCIENCE

TI Three approaches to heuristic search in networks.

AU Bagchi, A.; Mahanti, A. (Indian Institute of Management Calcutta, Calcutta, India)

SO J. ACM. (Jan. 1985) v. 32, 1, p.1-27.

DT Journal

LA English

IP ACM-CR

DN 8609-0842

AB This paper compares the performance of five heuristic search algorithms, related to the now classical A\* algorithm introduced by Nilsson [1]. The five algorithms are classified into three "approaches." The first approach is the classical one; i.e., the node in the search graph which is selected for expansion is the one for which the cost function has a minimum value. The algorithms representing this approach are (1) A\* (as modified by Martelli), and (2) an alternative to A\*, also proposed by Nilsson, in which a node that has been expanded is not expanded again; instead, as in Nilsson's GRAPHSEARCH heuristic search algorithm for networks, when a little path to a previously expanded node is found, values are "propagated" to its currently know successors. These two algorithms are termed A and PropA by the authors. The second approach is likewise illustrated by two algorithms. Algorithm C was introduced by the authors in 1983. It differs from A in that a new variable F is introduced. Nodes are selected for expansion when  $fwF$ , where  $f(n)$  is an estimate of the cost of a minimum cost path from the start node to a goal node when the path is constrained to go through node n. The detailed additional step in the algorithm, which involves replacement of F by  $f(n)$  under appropriate conditions, is discussed in detailed by the authors in the first reference of the paper [2]. In [2], they show that when search heuristics do not satisfy the admissibility requirement, Algorithm C nearly always outperforms A, as measured by the number of node expansions and the cost of solution found by it. The fourth algorithm, termed PropC, modifies C by adding the propagation property in an analogous way to the difference between Algorithm A and PropA. Finally, an algorithm introduced by Martelli and Montanari [3] for AND/OR graphs is adapted to networks and termed MarkA. The name derives from the fact that this is an arc-marking algorithm. Following expansion of each node, one outgoing arc is marked. Cost comparisons are then made as one moves up the marked path, altering the marking if necessary. The paper presents a number of results concerning the performance of each of these algorithms. The algorithms differ in their success rate primarily under conditions when the heuristic cost estimate functions are inadmissible, i.e., when for at least one node in the graph,  $h(n) > h(n)$  where  $h(n)$  is the cost associated with the least path cost from node n to the goal, and where  $h(n)$  is the heuristic estimate of that cost. The performance of the five algorithms is measured by (1) the cost of the solution they find, and (2) the time of execution and storage requirements in the worst case, as measured by the number of node expansions with A and C, the number of nodes selected by PropA and PropC, and the number of arc markings for MarkA. The paper concludes with recommendations on the choice of algorithm under various conditions. When the heuristic is admissible, it is indicated that all five algorithms find the minimal cost solution. However, if the network has loops, MarkA cannot be used, and, in terms of execution times, the recommended method is PropA. When the heuristic is admissible and there are no loops in the graph, MarkA is recommended



since it makes at most  $O(N^2)$  arc markings (where  $N$  is the number of nodes in the graph). When the heuristic is inadmissible, the authors recommend their own algorithm (D), since it yields solutions as good or better than A, PropA, or MarkA and runs faster than PropC. Clearly, the book is not closed in the study of search algorithms since an infinite number of variations are possible. However, papers such as the present one emphasize the importance of Nilsson's contribution [1]. -G. A. Bekey, Los Angeles, CA REFERENCES [1] HART, P. E.; NILSSON, N. J.; AND RAPHAEL, B. A formal basis for the heuristic determination of minimum cost paths, IEEE Trans. Syst. Sci. Cybern. SSC-4, 2 (July 1968), 100-107. See CR 10, 8 (Aug. 1969), Rev. 17,235. [2] BAGCHI, A.; AND MAHANTI, A. Search algorithms under different kinds of heuristics-a comparative study, J. ACM 30 (1983), 1-21. See CR 24, 6 (June 1983), Rev. 40,406. [3] MARTELLI, A.; AND MONTANARI, U. Additive AND/OR graphs, in Proc. of the third international joint conference on artificial intelligence (Stanford, CA), Aug. 1973, 1-11

L14 ANSWER 5 OF 5 COMPUSCIENCE COPYRIGHT 2005 FIZ KARLSRUHE on STN

AN 1983(2):AC40072 COMPUSCIENCE

TI Fixed-bucket binary storage trees.

AU Knott, Gary D. (National Institute of Health, Bethesda, MD)

SO J. Algorithms. (1982) v. 3 , p.276-287.

DT Journal

LA English

IP ACM-CR

DN 40072

AB In this excellent paper, the author defines and analyzes a new data structure, which he calls fixed-bucket binary storage tree, which combines attributes of binary search trees and binary digital trees. We recall that, in a binary search tree, the key value of a node is an upper bound for the key values present in the left subtree of the node and a lower bound for the key values present in the right subtree of the node. In a binary digital tree, the key values of nodes are  $k$ -bit numbers, and an item stored at level  $i$  in the tree (the root is at level 0) is found on the path described by the first  $i$  bits of its key value (0 indicates the left subtree, 1 indicates the right subtree). Binary search trees offer the advantage of convenient enumeration in key order; in particular, finding the largest and smallest keys is a straightforward process. Binary digital trees, on the other hand, lend themselves to approximate retrieval problems, such as partial match queries, range queries, and nearest neighbor searches. Both structures allow logarithmic time (on the average) storage and retrieval of items. Fixed-bucket binary storage trees combine properties of both structures. The root of each subtree is chosen (and dynamically updated as necessary) so that the resulting tree exhibits a predetermined structure. Statistical data collected about the key values may be used to determine the fixed structure. The author presents insertion and deletion algorithms based upon the distribution function of the key values. Both algorithms follow the general binary search tree algorithms, with two exceptions needed to maintain the coexistent binary digital tree structure: 1) the item to be inserted may have to be swapped with a tree item during insertion (in which case the insertion proceeds with the tree item); and 2) the choice of the node to promote in place of the deleted node-the deleted node's inorder predecessor or successor-is not indifferent. (As is the case for binary search tree, it is possible to construct post- or pre-ordered fixed-bucket binary storage trees.) These extra strictures help keep the tree more balanced than either of its counterparts. The article concludes with an analysis of the average behavior of fixed-bucket binary storage trees for retrieval, which compares very favorably with that of digital trees, tries, and Patricia (as developed in Knuth [1]). The analysis reveals that the distribution of the total path length of the fixed-bucket binary storage tree can be used as a statistical test for the distribution of its keys. Finally, the author hypothesizes that the

09/801,140

(so far unknown) distribution of the number of item exchanges required in the construction of a tree may prove a useful statistic in analyzing the randomness of the sequence of items presented for storage. -B.M.E. Moret, Albuquerque, NM REFERENCES [1] KNUTH, D. E. The art of computer programming. Volume 3: searching and sorting, Addison-Wesley Publ. Co., Reading, MA, 1973, Section 6.3. See CR 14, 8 (Aug. 1973), Rev. 25,533.

=>

File 9:Business & Industry(R) Jul/1994-2005/Apr 28  
 (c) 2005 The Gale Group  
 File 16:Gale Group PROMT(R) 1990-2005/Apr 29  
 (c) 2005 The Gale Group  
 File 47:Gale Group Magazine DB(TM) 1959-2005/May 03  
 (c) 2005 The Gale group  
 File 148:Gale Group Trade & Industry DB 1976-2005/May 03  
 (c)2005 The Gale Group  
 File 160:Gale Group PROMT(R) 1972-1989  
 (c) 1999 The Gale Group  
 File 275:Gale Group Computer DB(TM) 1983-2005/May 03  
 (c) 2005 The Gale Group  
 File 570:Gale Group MARS(R) 1984-2005/May 03  
 (c) 2005 The Gale Group  
 File 621:Gale Group New Prod.Annou.(R) 1985-2005/May 03  
 (c) 2005 The Gale Group  
 File 636:Gale Group Newsletter DB(TM) 1987-2005/May 03  
 (c) 2005 The Gale Group  
 File 649:Gale Group Newswire ASAP(TM) 2005/Apr 12  
 (c) 2005 The Gale Group

Set	Items	Description
S1	544908	HIERARCH? OR TREE OR TREES OR BTREE? OR SUBTREE? OR TREEMA- P?
S2	182436	NODE OR NODES OR NODAL? ? OR SUBNODE? OR SUBNODAL? OR MULT- INODE? OR MULTINODAL?
S3	16766	(ANY OR ANYONE OR ALL OR EACH OR EVERY OR EVERYONE) (1W)S2
S4	1618151	SEARCH? OR QUERY? OR QUERIE? ? OR SUBQUER?
S5	5323968	CHOICE? ? OR OPTION? ? OR ALTERNATIVE? ? OR ALTERNATE OR A- LTERNATES
S6	77193	(BINARY OR TWO OR PAIR?? ? OR DUAL OR 2 OR DYAD? OR DUAD? - OR COUPLE OR DUplet?) (1W) (S5 OR SELECTION? ?)
S7	2727	DICHOTOMOUS
S8	763	S1(S)S3
S9	1	S8(S)S6:S7
S10	3270	S2(S)S4
S11	19	S10(S)S6:S7
S12	19	S9 OR S11
S13	1	S12/2001:2005
S14	18	S12 NOT S13
S15	3	RD (unique items)

15/3,K/3 (Item 1 from file: 148)  
 DIALOG(R)File 148:Gale Group Trade & Industry DB  
 (c)2005 The Gale Group. All rts. reserv.

12374284 SUPPLIER NUMBER: 63192776 (USE FORMAT 7 OR 9 FOR FULL TEXT)  
**Design of flexible assembly line to minimize equipment cost.**  
 BUKCHIN, JOSEPH; TZUR, MICHAL  
 IIE Transactions, 32, 7, 585  
 July, 2000  
 ISSN: 0740-817X LANGUAGE: English RECORD TYPE: Fulltext  
 WORD COUNT: 9826 LINE COUNT: 00765

... a node is generated for every feasible equipment-task combination.  
 Stage 2. Selection of a node to be extended. As described above, a lower bound of the optimal cost is calculated for each node of the tree. The open node (node without descendants) with the lowest lower bound is selected for further extension, representing our choice of a frontier search algorithm.

Stage 3. Node extension. Each descendant of the extended node

contains an assignment of...

?

File 347:JAPIO Nov 1976-2004/Dec(Updated 050405)  
 (c) 2005 JPO & JAPIO  
 File 350:Derwent WPIX 1963-2005/UD,UM &UP=200527  
 (c) 2005 Thomson Derwent  
 File 348:EUROPEAN PATENTS 1978-2005/Apr W04  
 (c) 2005 European Patent Office  
 File 324:German Patents Fulltext 1967-200516  
 (c) 2005 Univentio

Set	Items	Description
S1	75	AU=KEITH R?
S2	42195	HIERARCH?
S3	94906	TREE OR TREES OR BTREE?
S4	4914	S3(20N)NODE? ?
S5	9	S1 AND S4

? t5/9/all

5/9/1 (Item 1 from file: 350)  
 DIALOG(R)File 350:Derwent WPIX  
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014726443 \*\*Image available\*\*  
 WPI Acc No: 2002-547147/200258  
 Related WPI Acc No: 2001-582337; 2001-624977; 2002-061747; 2002-061748;  
 2002-205282; 2002-279998; 2002-291308; 2002-338066; 2002-403533;  
 2002-642433

XRPX Acc No: N02-433180

Information accessing method in electronic system, involves formatting  
 searchable database into directory tree structure and accessing  
 specific0 node using query string which defines navigation path through  
 tree structure

Patent Assignee: WEB ACCESS INC (WEBA-N)

Inventor: KEITH R O

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20020065812	A1	20020530	US 2000188328	A	20000309	200258 B
			US 2000200963	A	20000501	
			US 2001801140	A	20010306	

Priority Applications (No Type Date): US 2001801140 A 20010306; US  
 2000188328 P 20000309; US 2000200963 P 20000501

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20020065812	A1		28	G06F-017/30	Provisional application US 2000188328

Provisional application US 2000200963

Abstract (Basic): US 20020065812 A1

NOVELTY - A searchable database in an electronic system is  
 formatted into directory tree structure having nodes comprising  
 related data. Each item of the related data is categorized by a  
 navigation path through the directory tree structure by several  
 previously setup parameters. A node within the tree structure is  
 accessed using a query string which defines the navigation path.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the  
 following:

- (1) Research system for accessing information within electronic  
 system; and
- (2) Network of devices for accessing information within the

electronic system.

USE - For accessing information within directory tree structure in electronic system such as computer system connected to network by use of search method such as keyword search, hierarchical search, dichotomous key search and parametric search.

ADVANTAGE - Avoids the need of manually traversing the navigation path since query string is used to access the node. Improves research accuracy and provides data management methodology that reduces costs and the time users spend finding the desired objective. Enables the user to quickly and easily jump from one technology to another to maximize the benefits of using multiple approach techniques.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of database management and research system.

pp; 28 DwgNo 1/10

Title Terms: INFORMATION; ACCESS; METHOD; ELECTRONIC; SYSTEM; FORMAT; SEARCH; DATABASE; DIRECTORY; TREE; STRUCTURE; ACCESS; SPECIFIC; NODE; QUERY; STRING; DEFINE; NAVIGATION; PATH; THROUGH; TREE; STRUCTURE

Derwent Class: T01; W01

International Patent Class (Main): G06F-017/30

File Segment: EPI

Manual Codes (EPI/S-X): T01-J05B2B; T01-J05B4M; T01-N03A2; W01-A

5/9/2 (Item 2 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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014582829 \*\*Image available\*\*

WPI Acc No: 2002-403533/200243

Related WPI Acc No: 2001-582337; 2001-624977; 2002-061747; 2002-061748; 2002-205282; 2002-279998; 2002-291308; 2002-338066; 2002-547147; 2002-642433

XRPX Acc No: N02-316639

Directory tree structured information formatting method in database management and research system, involves generating searched item that represents node and formatting node related data in encyclopedia-like entry

Patent Assignee: WEB ACCESS INC (WEB-A-N)

Inventor: KEITH R O

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20020032672	A1	20020314	US 2000188328	A	20000309	200243 B
			US 2000200963	A	20000501	
			US 2001800592	A	20010306	

Priority Applications (No Type Date): US 2001800592 A 20010306; US 2000188328 P 20000309; US 2000200963 P 20000501

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20020032672	A1		28	G06F-017/30	Provisional application US 2000188328

Provisional application US 2000200963

Abstract (Basic): US 20020032672 A1

NOVELTY - The data is searched utilizing a search methodology such as a keyword search in a database formatted in a directory tree structure, for generating matching item that represents a node. The directory tree structure includes branches with links between nodes that comprises collection of related data. The data corresponding to

the node representing a selected item is displayed in an encyclopedia-like entry.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for the organization system for formatting information.

USE - In database management and research system for formatting information in directory tree structure into encyclopedia-like entry.

ADVANTAGE - A real time interactive process to manage, redefine, reorganize, access, store and retrieve information without a need to perform a data conversion, is enabled.

DESCRIPTION OF DRAWING(S) - The figure shows a block diagram of the database management and research system.

pp; 28 DwgNo 1/10

Title Terms: DIRECTORY; TREE; STRUCTURE; INFORMATION; FORMAT; METHOD; DATABASE; MANAGEMENT; RESEARCH; SYSTEM; GENERATE; SEARCH; ITEM; REPRESENT ; NODE; FORMAT; NODE; RELATED; DATA; ENTER

Derwent Class: T01

International Patent Class (Main): G06F-017/30

International Patent Class (Additional): G06F-015/16

File Segment: EPI

Manual Codes (EPI/S-X): T01-J05B2B; T01-J05B3; T01-J05B4M

5/9/3 (Item 3 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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014517363 \*\*Image available\*\*

WPI Acc No: 2002-338066/200237

Related WPI Acc No: 2001-582337; 2001-624977; 2002-061747; 2002-061748;

2002-205282; 2002-279998; 2002-291308; 2002-403533; 2002-547147;

2002-642433

XRFX Acc No: N02-265695

Interactive data organization method in database management and research system, involves linking multimedia data to specific node by corresponding pointers, the data being related to designated category of specific node

Patent Assignee: WEB ACCESS INC (WEB-A-N)

Inventor: KEITH R O

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20020004793	A1	20020110	US 2000188328	A	20000309	200237 B
			US 2000200963	A	20000501	
			US 2001801076	A	20010306	

Priority Applications (No Type Date): US 2001801076 A 20010306; US

2000188328 P 20000309; US 2000200963 P 20000501

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20020004793	A1		29	G06F-017/30	Provisional application US 2000188328

Provisional application US 2000200963

Abstract (Basic): US 20020004793 A1

NOVELTY - A directory tree structure including designated category of nodes and branches, is generated. Pointers categorized by parameters specific to the nodes, are generated to link specific node to the web-based multimedia data. The multimedia data linked to the specific node by corresponding pointers, are related to the designated category of the node.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (a) Data organization system;
- (b) Data organization devices network;
- (c) Directory tree structure generation method

USE - In database management and research system for organizing and for searching web-based multimedia, word, excel documents, powerpoint documents, mechanical drawings, files and applications with associated URL and web interface stored in human resource database, financial and accounting database, manufacturing database, order processing and fulfillment database, customer service database, sales and marketing database, for searching information for diagnosing disease, mechanical problem, etc., using searching technologies such as keyword search, hierarchical tree, customizable parametric search, dichotomous key search, etc.

ADVANTAGE - A real-time interactive process is provided to enable data organization without a need for data conversion, to retrieve specific and categorized information. The research module enables discrete searches required by hardware manufacturers. Users can locate discrete product information faster. The tree structure generated can be modified and scaled as required.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of database management and research system.

pp; 29 DwgNo 1/10

Title Terms: INTERACT; DATA; ORGANISE; METHOD; DATABASE; MANAGEMENT; RESEARCH; SYSTEM; LINK; DATA; SPECIFIC; NODE; CORRESPOND; POINT; DATA; RELATED; DESIGNATED; CATEGORY; SPECIFIC; NODE

Derwent Class: T01

International Patent Class (Main): G06F-017/30

File Segment: EPI

Manual Codes (EPI/S-X): T01-J05B2B; T01-J05B4M; T01-N01A; T01-N01D1; T01-N03A2

5/9/4 (Item 4 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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014470605 \*\*Image available\*\*

WPI Acc No: 2002-291308/200233

Related WPI Acc No: 2001-582337; 2001-624977; 2002-061747; 2002-061748; 2002-205282; 2002-279998; 2002-338066; 2002-403533; 2002-547147; 2002-642433

XRPX Acc No: N02-227450

Data access method in electronic system, involves formatting database into directory tree structure comprising branches, and nodes which are accessed using application program interface to obtain data

Patent Assignee: WEB ACCESS INC (WEBA-N)

Inventor: KEITH R O

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20020016794	A1	20020207	US 2000188328	A	20000309	200233 B
			US 2000200963	A	20000501	
			US 2001800566	A	20010306	

Priority Applications (No Type Date): US 2001800566 A 20010306; US 2000188328 P 20000309; US 2000200963 P 20000501

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20020016794	A1	28	G06F-017/30	Provisional application	US 2000188328



Abstract (Basic): US 20020016794 A1

NOVELTY - A database is formatted into a directory **tree** structure comprising **nodes**, branches and **node** links. Each **node** includes related data which are categorized by a navigation path, based on several parameters. Each node is accessed to obtain data, using an application programming interface.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(a) Research system;

(b) Network for accessing a database

USE - For accessing data from an electronic system by an external system for research in medical field, educational field, etc.

ADVANTAGE - Data are accessed without the need to perform data conversion thereby enabling cost reduction and improvement in efficiency. By formatting the database to directory tree structure, the user is enabled to search the required data quickly and easily thereby reducing the search time.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of database management and research system.

pp; 28 DwgNo 1/10

Title Terms: DATA; ACCESS; METHOD; ELECTRONIC; SYSTEM; FORMAT; DATABASE; DIRECTORY; TREE; STRUCTURE; COMPRISE; BRANCH; NODE; ACCESS; APPLY; PROGRAM; INTERFACE; OBTAIN; DATA

Derwent Class: T01

International Patent Class (Main): G06F-017/30

File Segment: EPI

Manual Codes (EPI/S-X): T01-J05B2B; T01-J05B3; T01-J05B4P; T01-J20B1

5/9/5 (Item 5 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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014384579 \*\*Image available\*\*

WPI Acc No: 2002-205282/200226

Related WPI Acc No: 2001-582337; 2001-624977; 2002-061747; 2002-061748; 2002-279998; 2002-291308; 2002-338066; 2002-403533; 2002-547147; 2002-642433

XRFX Acc No: N02-156262

New data entry notification method for electronic system, involves triggering notification signal by saving navigation path and parameters associated with discrete item, when new item enters into searchable database

Patent Assignee: WEB ACCESS INC (WEB-A-N)

Inventor: KEITH R O

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20020016793	A1	20020207	US 2000188328	A	20000309	200226 B
			US 2000200963	A	20000501	
			US 2001799032	A	20010306	

Priority Applications (No Type Date): US 2001799032 A 20010306; US 2000188328 P 20000309; US 2000200963 P 20000501

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 20020016793	A1	29	G06F-017/30	Provisional application US 2000188328

Abstract (Basic): US 20020016793 A1

NOVELTY - A searchable database is formatted into a directory tree structure with nodes comprising categorized related data items and respective navigation paths. A notification signal is set by saving the navigation path and parameters associated with a discrete item, and is triggered when a new item enters the database. The user is notified of the new item entry, as a response to the triggering.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for new data entry notification system.

USE - For notifying new data entry in electronic system e.g. networked computer system.

ADVANTAGE - Enables user to identify a specific result regardless of the search methodology and enables user to access data residing external to the database also, by using links.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of database management and researching system used in new data entry notification method.

pp; 29 DwgNo 1/10

Title Terms: NEW; DATA; ENTER; NOTIFICATION; METHOD; ELECTRONIC; SYSTEM; TRIGGER; NOTIFICATION; SIGNAL; SAVE; NAVIGATION; PATH; PARAMETER; ASSOCIATE; DISCRETE; ITEM; NEW; ITEM; ENTER; SEARCH; DATABASE

Derwent Class: T01

International Patent Class (Main): G06F-017/30

File Segment: EPI

Manual Codes (EPI/S-X): T01-J05B2B; T01-J05B3; T01-J05B4M; T01-N03A2

5/9/6 (Item 6 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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014241048 \*\*Image available\*\*

WPI Acc No: 2002-061748/200208

Related WPI Acc No: 2001-582337; 2001-624977; 2002-061747; 2002-205282; 2002-279998; 2002-291308; 2002-338066; 2002-403533; 2002-547147; 2002-642433

XRPX Acc No: N02-045855

Research method for Internet involves using several search methods e.g. keyword, hierarchical, dichotomous key, or parametric.

Patent Assignee: WEB ACCESS INC (WEBA-N)

Inventor: KEITH R O

Number of Countries: 094 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200167209	A2	20010913	WO 2001US7185	A	20010306	200208 B
AU 200143459	A	20010917	AU 200143459	A	20010306	200208

Priority Applications (No Type Date): US 2000200963 P 20000501; US 2000188328 P 20000309

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200167209 A2 E 69 G06F-000/00

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

AU 200143459 A G06F-000/00 Based on patent WO 200167209

Abstract (Basic): WO 200167209 A2

NOVELTY - Search method selected by research module (100) e.g. keyword (300), hierarchical (500), dichotomous key (900), or parametric (700), and used with search criteria to find matching items which are then used to find other related items.

DETAILED DESCRIPTION - Directory **tree** structure created in server (12). Each **node** has a category e.g. botany. Pointers from specific **node** lead to items of that category. Pointer is defined by navigation path and set of parameters. Nodes, data links and pointers can be added, edited or deleted. Data is multimedia and displayed in an encyclopedia page. Each node can contain a corresponding hypertext markup language address.

INDEPENDENT CLAIMS are included for

1. A research system using the described method.

2. A server implementing the described method.

USE - As a means of organizing research on the Internet e.g. Internet encyclopedia.

ADVANTAGE - Combines best search methodologies.

DESCRIPTION OF DRAWING(S) - Drawing is a block diagram of the described system.

Server (12)

Research module (100)

Keyword search module (300)

Hierarchical search module (500)

Parametric search module (700)

Dichotomous key module (900)

pp: 69 DwgNo 1/10

Title Terms: RESEARCH; METHOD; SEARCH; METHOD; KEYWORD; HIERARCHY; KEY; PARAMETER

Derwent Class: T01

International Patent Class (Main): G06F-000/00

File Segment: EPI

Manual Codes (EPI/S-X): T01-H07C3D; T01-H07C5E; T01-H07C5S; T01-J05B2B; T01-J05B3; T01-J05B4A; T01-J05B4M; T01-J11C1

5/9/7 (Item 7 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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014241047 \*\*Image available\*\*

WPI Acc No: 2002-061747/200208

Related WPI Acc No: 2001-582337; 2001-624977; 2002-061748; 2002-205282; 2002-279998; 2002-291308; 2002-338066; 2002-403533; 2002-547147; 2002-642433

XRFX Acc No: N02-045854

Data organization method for the Internet involves creating a directory tree structure with various node categories and generating pointers linking specific nodes to items of data

Patent Assignee: WEB ACCESS INC (WEB-A-N)

Inventor: KEITH R O

Number of Countries: 094 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200167207	A2	20010913	WO 2001US7112	A	20010306	200208 B
AU 200140061	A	20010917	AU 200140061	A	20010306	200208

Priority Applications (No Type Date): US 2000200963 P 20000501; US 2000188328 P 20000309

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes  
WO 200167207 A2 E 66 G06F-000/00  
Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA  
CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP  
KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT  
RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW  
Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR  
IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW  
AU 200140061 A G06F-000/00 Based on patent WO 200167207

Abstract (Basic): WO 200167207 A2

NOVELTY - Directory **tree** structure created in server (12). Each **node** has a category e.g. botany. Pointers from specific **node** lead to items of that category. Pointer is defined by navigation path and set of parameters. Nodes, data links and pointers can be added, edited or deleted. Search may be keyword (300), hierarchical (500), dichotomous key (900), or parametric (700).

DETAILED DESCRIPTION - Data is multimedia and displayed in an encyclopedia page. Each node can contain a corresponding hypertext markup language address.

INDEPENDENT CLAIMS are included for

1. A system using the described method.
2. A server implementing the described method.

USE - As a means of organizing research on the Internet e.g. Internet encyclopedia.

ADVANTAGE - Combines best search methodologies.

DESCRIPTION OF DRAWING(S) - Drawing is a block diagram of the described system.

Server (12)

Research module (100)

Keyword search module (300)

Hierarchical search module (500)

Parametric search module (700)

Dichotomous key module (900)

pp; 66 DwgNo 1/9

Title Terms: DATA; ORGANISE; METHOD; DIRECTORY; TREE; STRUCTURE; VARIOUS; NODE; CATEGORY; GENERATE; POINT; LINK; SPECIFIC; NODE; ITEM; DATA

Derwent Class: T01

International Patent Class (Main): G06F-000/00

File Segment: EPI

Manual Codes (EPI/S-X): T01-H07C3D; T01-H07C5E; T01-H07C5S; T01-J05B3; T01-J05B4A; T01-J05B4M

5/9/8 (Item 8 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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014140766 \*\*Image available\*\*

WPI Acc No: 2001-624977/200172

Related WPI Acc No: 2001-582337; 2002-061747; 2002-061748; 2002-205282; 2002-279998; 2002-291308; 2002-338066; 2002-403533; 2002-547147; 2002-642433

XRPX Acc No: N01-465738

Applying parametric search methodology to directory tree database format by providing corresponding set of parameters by which each related item of data is defined by initializing value of each parameter for each related data

Patent Assignee: WEB ACCESS INC (WEB-A-N)

Inventor: KEITH R O

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20010025304	A1	20010927	US 2000188328	P	20000309	200172 B
			US 2000200963	P	20000501	
			US 2001800607	A	20010306	

Priority Applications (No Type Date): US 2001800607 A 20010306; US 2000188328 P 20000309; US 2000200963 P 20000501

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20010025304	A1		28	G06F-007/00	Provisional application US 2000188328

Provisional application US 2000200963

Abstract (Basic): US 20010025304 A1

NOVELTY - The directory **tree** structure includes **nodes** comprising a collection of related data and branches comprising links between the **nodes**. Each specific **node** provides a corresponding set of parameters by which each related item of data corresponding to the specific node is defined by initializing the value of each parameter for each related data.

DETAILED DESCRIPTION - The method accesses a particular **node** within the directory **tree** structure and performs a parametric search using one or more set search parameters corresponding to the specific **node** to generate one or more matching discrete data items, wherein each matching item corresponds to related data of the particular node. The parameters can be customizable and specific to the specific node. INDEPENDENT CLAIMS are included for a research system and a network device for accessing information.

USE - Method for applying a parametric search methodology to a directory tree database format.

ADVANTAGE - Can be used at any location within the directory structure.

DESCRIPTION OF DRAWING(S) - The drawing shows a flowchart of the user process.

pp; 28 DwgNo 3/10

Title Terms: APPLY; PARAMETER; SEARCH; DIRECTORY; TREE; DATABASE; FORMAT; CORRESPOND; SET; PARAMETER; RELATED; ITEM; DATA; DEFINE; INITIALISE; VALUE; PARAMETER; RELATED; DATA

Derwent Class: T01

International Patent Class (Main): G06F-007/00

International Patent Class (Additional): G06F-015/16; G06F-017/30

File Segment: EPI

Manual Codes (EPI/S-X): T01-F05E; T01-J05B3; T01-J05B4M

5/9/9 (Item 9 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2005 Thomson Derwent. All rts. reserv.

014098123 \*\*Image available\*\*

WPI Acc No: 2001-582337/200165

Related WPI Acc No: 2001-624977; 2002-061747; 2002-061748; 2002-205282; 2002-279998; 2002-291308; 2002-338066; 2002-403533; 2002-547147; 2002-642433

XRPX Acc No: N01-433836

Database searching method for executing research over public switched telephone networks, uses combinations of keyword, dichotomous, parametric or hierarchical search methodologies

Patent Assignee: WEB ACCESS INC (WEBA-N)

Inventor: KEITH R O

Number of Countries: 094 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200167351	A1	20010913	WO 2001US7096	A	20010306	200165 B
AU 200143443	A	20010917	AU 200143443	A	20010306	200204

Priority Applications (No Type Date): US 2000200963 P 20000501; US 2000188328 P 20000309

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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WO 200167351	A1	E	69	G06F-017/60	
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Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

AU 200143443	A			G06F-017/60	Based on patent WO 200167351
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Abstract (Basic): WO 200167351 A1

NOVELTY - Research is executed on networked (24) databases using user defined parameters (700) or keywords (300). A hierarchical search (500) using a **tree** directory or a dichotomous binary search (900) can also be executed. The directory **tree** is divided into **nodes** of related data. Branches link between the **nodes**. Results are displayed in an encyclopedia-like format of text, graphics and links to related topics.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) A research system for performing a research task within a searchable database using combinations of keyword, hierarchical, parametric and dichotomous searches and using a research server.

(2) Methods of performing searches on databases using combinations of keyword, hierarchical, parametric and dichotomous searches.

USE - For researching of databases over a public switched telephone network (PSTN) such as the Internet.

ADVANTAGE - The research method provides a real time interactive process to manage, redefine, reorganize, access, store and retrieve information without the need to perform data conversion. The database management and research system provides a customizable directory tree structure that functions with existing networks, security and infrastructure. The system overlays and points to existing data thereby providing the necessary management and access processes relative to the existing data. The directory **tree** structure includes **nodes** which represent Hypertext Markup Language (HTML) addresses and branches which represent links between HTML addresses in other **nodes**. It enables discrete searches to be executed on linked data by using a combination of search methodologies.

DESCRIPTION OF DRAWING(S) - The block diagram represents a database management and researching system.

Public switched telephone network (24)

Keyword search module (300)

Hierarchical search module (500)

Parametric search module (700)

Dichotomous search module (900)

pp; 69 DwgNo 1/10

Title Terms: DATABASE; SEARCH; METHOD; EXECUTE; RESEARCH; PUBLIC; SWITCH; TELEPHONE; NETWORK; COMBINATION; KEYWORD; PARAMETER; HIERARCHY; SEARCH

Derwent Class: T01; W01

International Patent Class (Main): G06F-017/60

File Segment: EPI

Manual Codes (EPI/S-X): T01-H07C5E; T01-H07C5S; T01-J05B2B; T01-J05B3;  
T01-J05B4P; T01-J11C1; W01-C02D

File 696:DIALOG Telecom. Newsletters 1995-2005/May 02  
(c) 2005 The Dialog Corp.  
File 15:ABI/Inform(R) 1971-2005/May 03  
(c) 2005 ProQuest Info&Learning  
File 98:General Sci Abs/Full-Text 1984-2004/Dec  
(c) 2005 The HW Wilson Co.  
File 112:UBM Industry News 1998-2004/Jan 27  
(c) 2004 United Business Media  
File 141:Readers Guide 1983-2005/Dec  
(c) 2005 The HW Wilson Co  
File 484:Periodical Abs Plustext 1986-2005/Apr W4  
(c) 2005 ProQuest  
File 608:KR/T Bus.News. 1992-2005/May 03  
(c) 2005 Knight Ridder/Tribune Bus News  
File 813:PR Newswire 1987-1999/Apr 30  
(c) 1999 PR Newswire Association Inc  
File 613:PR Newswire 1999-2005/May 03  
(c) 2005 PR Newswire Association Inc  
File 635:Business Dateline(R) 1985-2005/May 03  
(c) 2005 ProQuest Info&Learning  
File 810:Business Wire 1986-1999/Feb 28  
(c) 1999 Business Wire  
File 610:Business Wire 1999-2005/May 02  
(c) 2005 Business Wire.  
File 369:New Scientist 1994-2005/Mar W4  
(c) 2005 Reed Business Information Ltd.  
File 370:Science 1996-1999/Jul W3  
(c) 1999 AAAS  
File 20:Dialog Global Reporter 1997-2005/May 03  
(c) 2005 The Dialog Corp.  
File 624:McGraw-Hill Publications 1985-2005/May 02.  
(c) 2005 McGraw-Hill Co. Inc  
File 634:San Jose Mercury Jun 1985-2005/May 02  
(c) 2005 San Jose Mercury News  
File 647:CMP Computer Fulltext 1988-2005/Apr W3  
(c) 2005 CMP Media, LLC  
File 674:Computer News Fulltext 1989-2005/Apr W3  
(c) 2005 IDG Communications

Set	Items	Description
S1	848111	HIERARCH? OR TREE OR TREES OR BTREE? OR SUBTREE? OR TREEMA- P?
S2	113663	NODE OR NODES OR NODAL? ? OR SUBNODE? OR SUBNODAL? OR MULT- INODE? OR MULTINODAL?
S3	8823	(ANY OR ANYONE OR ALL OR EACH OR EVERY OR EVERYONE) (1W)S2
S4	2305374	SEARCH? OR QUERY? OR QUERIE? ? OR SUBQUER?
S5	5910497	CHOICE? ? OR OPTION? ? OR ALTERNATIVE? ? OR ALTERNATE OR A- LTERNATES
S6	95366	(BINARY OR TWO OR PAIR?? ? OR DUAL OR 2 OR DYAD? OR DUAD? - OR COUPLE OR DUplet?) (1W) (S5 OR SELECTION? ?)
S7	9265	DICHOTOMOUS
S8	696	S1(S)S3
S9	5	S8(S)S6:S7
S10	2333	S2(S)S4
S11	9	S10(S)S6:S7
S12	13	S9 OR S11
S13	5	S12/2001:2005
S14	8	S12 NOT S13
S15	8	RD (unique items)

15/3,K/1 (Item 1 from file: 15)



DIALOG(R)File 15:ABI/Inform(R)  
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02777591 575863521

**An Ant Colony System Hybridized with a New Local Search for the Sequential Ordering Problem**

Gambardella, Luca Maria; Dorigo, Marco  
INFORMS Journal on Computing v12n3 PP: 237-255 Summer 2000  
ISSN: 1091-9856 JRNL CODE: INJC  
WORD COUNT: 10784

...TEXT: constructive phase based on the ACS algorithm (Dorigo and Gambardella 1997) with a new local search procedure called SOP-3-exchange. SOP-3-exchange is based on a lexicographic search heuristic due to Savelsbergh (1990) and a new labeling procedure able to handle multiple precedence constraints. In addition, we test and compare different methods to select nodes during the search and different stopping criteria. In particular we test two different selection heuristics: one based on the don't look bit data structure introduced by Bentley (1992...

15/3,K/3 (Item 3 from file: 15)  
DIALOG(R)File 15:ABI/Inform(R)  
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01800437 04-51428

**Managerial intervention in organizational disputes: Testing a prescriptive model of strategy selection**

Elangovan, A R  
International Journal of Conflict Management v9n4 PP: 301-335 Oct 1998  
ISSN: 1044-4068 JRNL CODE: IJCM  
WORD COUNT: 15164

...TEXT: the form of a decision tree (Figure 2) developed using the six questions (attributes) with two status options (high/low) and the seven rules to guide the selection of one of five intervention strategies. Each node on the decision tree corresponds to a question designed to characterize the situation in terms of one of the six key attributes described earlier. The status of each attribute is assessed at each node, and depending on the answer (high or low) to the question, the appropriate path or branch is selected. Starting from the left and proceeding along the branches of the decision tree by asking the series of questions about the situation, one eventually arrives at the appropriate ...

15/3,K/6 (Item 2 from file: 98)  
DIALOG(R)File 98:General Sci Abs/Full-Text  
(c) 2005 The HW Wilson Co. All rts. reserv.

04010343 H.W. WILSON RECORD NUMBER: BGSA99010343 (USE FORMAT 7 FOR FULLTEXT)

**Estimating prevalence of type 1 and type 2 diabetes in a population of African Americans with diabetes mellitus.**

Boyle, James P  
Engelgau, Michael M; Thompson, Theodore J  
American Journal of Epidemiology (Am J Epidemiol) v. 149 n01 (Jan. 1 1999)  
p. 55-63  
SPECIAL FEATURES: bibl il ISSN: 0002-9262

LANGUAGE: English  
COUNTRY OF PUBLICATION: United States  
WORD COUNT: 6494

(USE FORMAT 7 FOR FULLTEXT)

TEXT:

... binary outcome (23). They are constructed by using recursive partitioning. At each node of the **tree** (beginning with the root node, which consists of all observations to be used in constructing the **tree**), the following **dichotomous** splits of the data based on predictor variables are allowed. For a continuous or ordered...

...predictor variable and split combination is chosen to maximize the reduction in deviance for the **tree**, thereby transforming the node in question into two nodes. Nodes that contain fewer than 10...

...nodes. The procedure is then repeated until no more splits are allowed. Since constructing a **tree** usually entails some overfitting, an algorithm can be applied that creates a nested sequence of **subtrees** by eliminating the least important splits (23). On the basis of this algorithm and by using the two **dichotomous** variables of sex and current insulin use and the three continuous variables of age, age at diagnosis, and BMI, we chose a simple **tree** that classifies diabetes using data that often differ by type. All **trees** were constructed by using S-Plus (Statistical Sciences, Inc., Seattle, Washington).

Classification rules were defined...

15/3,K/8 (Item 2 from file: 484)  
DIALOG(R)File 484:Periodical Abs Plustext  
(c) 2005 ProQuest. All rts. reserv.

04006226 (USE FORMAT 7 OR 9 FOR FULLTEXT)

**Efficiency and voluntary implementation in markets with repeated pairwise bargaining**

Jackson, Matthew O; Palfrey, Thomas R  
Econometrica (MET), v66 n6, p1353-1388, p.36  
Nov 1998

ISSN: 0012-9682 JOURNAL CODE: MET

DOCUMENT TYPE: Feature

LANGUAGE: English

RECORD TYPE: Fulltext; Abstract

WORD COUNT: 10748

TEXT:

... to be played between an arbitrary' buyer and seller at some time  $t$ , such that **each** terminal **node** suggests either a trade and price, or no trade. Given  $\gamma_{sub t}$ , let us define a dynam' version,  $F(\gamma_{sub t})$ , as follows. First, replace **any** terminal **node** of  $\gamma$  which recommends a trade and price, with a **node** that has a **binary choice**  $\gamma_{no}$  (yes, no) for the buyer. Let "no" lead to a terminal **node** with no trade as  $\gamma$  outcome. Let "yes" lead to a **binary choice node** (Yes, No) for the seller. Let "No" lead to a terminal **node** with no trade as the outcome, and "Yes" lead to terminal **node** with the originally prescribed trade and price. We have simply augmented  $\gamma_{sub t}$  by...the  $\gamma$  buyer must have at least one strictly improving deviation somewhere in the game **tree**.' Given the change in preferences of the  $\gamma$  buyer must have at least one' strictly improving buyer, the only way a deviation can be improving (and  $\gamma$  have game **tree**. Given the change in preferences of the before) is for the  $\gamma$  way a deviation...

...another one outcome was no trade. For this to have an effect further up the tree, it must be that an agent chooses this price rather than another up the or no tree, and so the change in the higher subgame must result in this price. This logic is iterated up the tree, and back to the equilibrium path, which implies the higher subgame must result in this changes....

...price given their anticipated values from rematching, and this price is available at some terminal node in the tree. Tracing the path from this terminal node back up the tree, one can find a best response for each agent at each node and this must leave them at least as well off as trade at this price...exceeds the sum of the expected surpluses of the two transacting parties so they to search one more period. For any game that tries to implement this efficient solution, some of...

...First, we provide a characterization of constrained efficiency in a setting with random matching and search. In situations where markets are truly decentralized, standard notions of efficiency are inappropriate since goods...

...to another. The matching process imposes constraints on the set of feasible allocations, and introduces search externalities across agents. These constraints and externalities are the heart of the characterization of constrained...

...choice of agents either accept the outcome of the mechanism, or to reject it and search for a new trading partner in the next period. The implementation is shown to be...in these decentralized matching and bilateral bargaining institutions will approximate Walrasian allocations when the frictions (search costs, discount factors, etc.) become infinitesimal. We put all these together under the general heading...

...a different approach, "renegotiation-proof implementation," which requires Pareto efficiency of the continuation outcome at all outcome nodes of the implementing mechanism. A related constraint is "credibility," or the inability to commit to...of Economic Studies, 46, 185-216. Reference: DIAMOND, P. (1982): "Wage Determination and Efficiency in Search Equilibrium" Review of Economic Studies, 49, 217-227. DuTTA, B., A. SEN, AND R. VOHRA...

...AND T. YAMATO (1993): "Toward Natural Implementation," forthcoming in International Economic Review. SATNGER, M. (1995): "Search and the Efficient Assignment of Workers to Jobs" International Economic Review, 36, 283-302. SHIMER, D., AND L. SMITH (1994): "The Normative Implications of Heterogeneity in Search," Mimeo, MIT. (1996): "Assortative Matching and Search," Mimeo, MIT. S. ROM, T. (1995): "Implementation by Demand Mechanisms," Economic Design, 1, 343-354...